

REMARKS

The applicants submit the above amendments to correct minor typographical errors in claims 12 and 45. These amendments do not change the scope of the claims. No new matter is added.

In the office action mailed 12 December 2006, the examiner asserts that claims 1 – 45 are obvious under §103 over Dillon (US2002/0137520) in view of Lewis (US6847821). More particularly, the examiner asserts that Dillon teaches every limitation of the independent claims except for monitoring a combined usage of a shared network resource by voice and data users. For this element, the examiner looks to Lewis. The applicants disagree with the rejections and offer the following remarks in response.

Independent claims 1 and 14 claim a method of prioritizing voice service over data service by monitoring the combined usage of a resource shared between voice and data users, and reducing the combined usage of the resource by modifying ongoing service to one or more data users responsive to detecting that the combined usage exceeds a defined threshold. Independent claim 31 claims a corresponding apparatus.

In the pending office action, the examiner concedes that “Dillon does not teach monitoring a combined usage of a shared network resource by voice and data users.” However, in rejecting the independent claims, the examiner asserts that “Dillon teaches the combined usage exceeds a resource release threshold.” Such statements are contradictory. Because Dillon does not monitor the combined usage of a shared network resource, as conceded by the examiner, Dillon necessarily cannot determine whether or not a combined usage exceeds a threshold.

The applicants further note that the only time Dillon teaches comparing any value to a threshold is when Dillon describes comparing a calculated E_s/I_{or} (a signal-to-noise ratio measurement) to a predetermined signal-to-noise ratio (see Figure 3 and ¶[0028]). Because

the calculated E_o/I_{or} value represents the performance of each wireless device instead of the claimed combined usage of a shared network resource, the E_o/I_{or} threshold comparison is not the same as or equivalent to the combined usage threshold comparison of the claimed invention.

The applicants further note that Lewis also does not teach or suggest monitoring a combined usage of a shared network resource. In fact, Lewis never even mentions usage or shared network resources. Instead, Lewis describes a method and apparatus for time multiplexing voice and non-voice data onto a single dedicated radio frequency channel. Thus, Lewis is completely unrelated to Dillon and the claimed invention. Because Lewis has nothing to do with Dillon or the claimed invention, not only is there no motivation for combining Lewis with Dillon, but Lewis also does not solve the deficiencies of Dillon. Thus, the §103 rejection is legally insufficient and must be withdrawn.

For at least the above reasons, the independent claims 1, 14, and 31 and all claims depending therefrom are patentably distinct from the cited art. The applicants respectfully request reconsideration.

The applicants further note that at least claims 2, 7 – 13, 15, 18, 21 – 24, 26, 28 – 30, 32, 36, 39 – 41, 43, and 44 add patentably distinct limitations to the independent claims. For example, nothing in Dillon or Lewis monitors the combined usage of a network resource shared by voice and data users, much less a transmit power (claims 2, 15, and 32), an average transmit power (claim 36), or a spreading code usage (claims 10, 23, and 40). At best, Dillon teaches monitoring a calculated performance parameter (E_o/I_{or}) as an indication of whether interference levels are high enough to put voice users at risk.

Further, nothing in Dillon or Lewis teaches or suggests ranking data users based on a particular metric, e.g., a forward link power-to-data-rate metric (claims 8, 29, and 44), an efficiency metric (claim 43), a particular service objective or constraint (claims 9, 21, and 22), or

a data rate (claim 28). In addition, nothing in Dillon or Lewis teaches or suggests selecting the users targeted for a resource release based on a rank of the current data users and on a targeted aggregate reduction amount (claim 26). At best Dillon categorizes the network users based on the type of service (i.e., voice, Internet, or FTP) currently being provided to the user (see ¶[0029]).

In addition, neither Dillon nor Lewis teach or suggest changing a radio service configuration (claims 7, 30, and 39), reducing a spreading code usage/changing a spreading code assignment (claims 11, 12, 24, and 41), or reducing a maximum transmit power below a current average transmit power (claim 18) when the combined usage exceeds a threshold. At best, Dillon teaches reducing the gain of one or more users during high interference conditions until the voice calls are no longer in danger of being dropped (see ¶[0034]).

Lastly, neither Dillon nor Lewis teach or suggest “reducing an aggregate usage of the shared network resource by the data users subject to one or more minimum usage constraints such that resources are not released from the current data users in violation of any minimum usage constraint” (claim 13). First, while the examiner asserts that Lewis teaches this limitation, the examiner cites sections of Dillon to support the rejection. Thus, at the very least this rejection is unclear. Regardless, neither Dillon nor Lewis mention any type of usage reduction control based on minimum usage constraints.

For at least these reasons, claims 2, 7 – 13, 15, 18, 21 – 24, 26, 28 – 30, 32, 36, 39 – 41, 43, and 44 add patentably distinct limitations to the corresponding independent claims. The applicants respectfully request reconsideration.

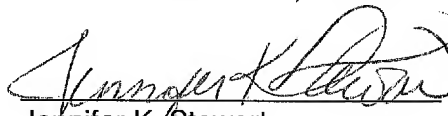
In addition, the applicants note that the rejections of the pending office action fail to address the explicit claim language of claims 2, 21 – 23, 27, 28, 30, 32- 34, 36, 37, 39 – 41, and 43 – 45. For example, claim 2 requires monitoring a combined using of a shared network resource by monitoring usage of forward link transmit power. However, the rejection simply

states "Lewis teaches monitoring a combined usage of a shared network resource by voice and data users." The rejection never addresses the claimed requirement of monitoring forward link transmit power. In another example, the rejection cited against claim 22 is grouped with the rejection cited against claim 5. However, claim 5 relates to reducing a transmit power allocation by reducing a data rate, while claim 22 relates to the exclusion/selection of current data users based on one or more service constraints. Because the proffered rejection only addresses the language of claim 5, the rejection necessarily cannot address the language of claim 21. Similar problems exist with the remaining claims listed above. As such, the rejections cited against claims 2, 21 – 23, 27, 28, 30, 32- 34, 36, 37, 39 – 41, and 43 – 45 are legally insufficient and must be withdrawn.

In light of the above remarks, the applicants respectfully request that the examiner reconsider and withdraw the pending rejections. While the applicants believe the above response addresses all outstanding issues, the applicants request that the examiner call the undersigned so that any remaining issues may be expeditiously resolved.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.



Jennifer K. Stewart
Registration No.: 53,639

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P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844
Facsimile: (919) 854-2084